

Title (en)
OMNI-DIRECTIONAL WHEEL AND OMNI-DIRECTIONAL VEHICLE INCLUDING THE SAME

Title (de)
OMNIDIREKTIONALES RAD UND OMNIDIREKTIONALES FAHRZEUG DAMIT

Title (fr)
ROUE OMNIDIRECTIONNELLE ET VÉHICULE OMNIDIRECTIONNEL LA COMPRENANT

Publication
EP 2868489 A1 20150506 (EN)

Application
EP 14190505 A 20141027

Priority
JP 2013224336 A 20131029

Abstract (en)
The omni-directional wheel includes first support parts (20) and second support parts (21) which support large-diameter rollers (30) and (31) and small-diameter rollers (40) and (41). Each of the first support parts (20) is disposed at a position where the first support part is held between a pair of the large-diameter rollers (30) and (31), while each of the second support parts (21) is disposed at a position where the second support part is held between a pair of the small-diameter rollers (40) and (41). The large-diameter rollers (30) and (31) and the small-diameter rollers (40) and (41) are disposed such that their outlines are arranged on a single circumference, with a part of the small diameter-side end face of the small-diameter rollers (40, 41) partially inserted in the recessed portions (30c, 31c) of the large-diameter rollers (30, 31).

IPC 8 full level
B60B 19/00 (2006.01); **B60B 19/12** (2006.01)

CPC (source: EP US)
B60B 19/003 (2013.01 - EP US); **B60B 19/12** (2013.01 - EP US)

Citation (applicant)
JP 3682248 B2 20050810

Citation (search report)
• [Y] JP 2008290638 A 20081204 - FUJI MFG CO LTD
• [A] JP 2001191704 A 20010717 - RIKAGAKU KENKYUSHO
• [Y] JP 2010006353 A 20100114 - KANTO JIDOSHA KOGYO KK
• [Y] WO 8603132 A1 19860605 - INT TEXAS IND INC [US]
• [A] US 2006125309 A1 20060615 - HUANG SHANJUN [CN], et al

Cited by
GB2574594A; US11273668B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2868489 A1 20150506; **EP 2868489 B1 20191211**; CN 104553603 A 20150429; DE 202014011233 U1 20180917;
JP 2015085750 A 20150507; JP 5778740 B2 20150916; US 2015115694 A1 20150430; US 9242508 B2 20160126

DOCDB simple family (application)
EP 14190505 A 20141027; CN 201410592437 A 20141029; DE 202014011233 U 20141027; JP 2013224336 A 20131029;
US 201414524216 A 20141027